

application. A copy of the previously-submitted PTO-1449 form is enclosed herewith for the convenience of the Examiner.

Claims 1-48 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,157,644 (hereinafter “Bernstein”).

In this response, Applicants traverse the §102(e) rejection, and respectfully request reconsideration of the present application.

Applicants initially note that MPEP §2131 specifies that a given claim is anticipated “only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference,” citing Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, MPEP §2131 indicates that the cited reference must show the “identical invention . . . in as complete detail as is contained in the . . . claim,” citing Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). For the reasons identified below, Applicants submit that the Examiner has failed to establish anticipation of claims 1-48 by Bernstein.

Independent claim 1, by way of example, is directed to a method of accelerating the routing of frames by an acceleration switch within a network. The method includes the steps of receiving, by the acceleration switch, frames directed to one of one or more routers or switches of the network; determining, for at least some of the received frames, whether the frames belong to a first list of frame groups, defined by values of a plurality of frame parameters; and routing, by the acceleration switch, at least some of the received frames, the routed frames being selected responsive to the determining. Applicants respectfully submit that these limitations are not taught or suggested by the Bernstein reference.

The Bernstein reference discloses a conventional router acceleration technique of a type similar to that described by Applicants in the background section of their specification. The specification, at page 1, lines 25-27, describes such a conventional technique as follows:

The acceleration switch intercepts packets, which it knows how to route, on their way to the adjacent router and routes them directly to their destination or to a next hop on their way to their destination.

It is important to note in this regard that Applicants are not attempting to claim conventional router acceleration as described in Bernstein or in the above-cited portion of the specification. Instead, what is claimed in claim 1 is an improved arrangement which overcomes a significant problem associated with Bernstein and other convention router acceleration techniques. This problem is described as follows at page 2, lines 1-4, of the specification:

Generally, in order to operate in a policy enforcement environment the policy rules must be configured into the acceleration switch. This, however, reduces the effect of an advantage of acceleration switches, which is that acceleration switches do not require configuration.

The present invention as set forth in claim 1 advantageously overcomes this significant drawback of Bernstein and other conventional approaches.

Nonetheless, the Examiner argues that Bernstein anticipates each and every limitation of each and every one of the 48 pending claims in the present application. Such a position is believed to be unsupportable.

For example, with regard to claim 1, there is no teaching or suggestion in Bernstein regarding the claim steps of determining, for at least some of the received frames, whether the frames belong to a first list of frame groups, defined by values of a plurality of frame parameters, and routing, by the acceleration switch, at least some of the received frames, the routed frames being selected responsive to the determining. The Examiner in formulating the rejection relies on the teachings in the flow diagram of FIG. 9 and in the corresponding text in column 6, lines 15-25, and column 7, lines 4-22. The relied-upon text from Bernstein provides as follows:

Referring to the flow chart of FIG. 9, the router accelerator switch of the present invention operates as follows. The switch waits for a packet to arrive either at a network-side port or a router-side port (step 900). When a packet is received over one of the network ports (step 902) as being directed to the router as a next hop, it is intercepted by the router accelerator switch at the switch's associated network port input. The PPL 604 then extracts the IP destination address from the packet frame (step 904) and forwards it to the port's packet-forwarding table for comparison with the IP destination addresses stored in the CAM of the PFT (steps 906, 908). The packet processing logic 604 also instructs the memory controller to store the packet in the shared memory packet storage.

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At this point, the packet forwarding table now stores the address binding for a first packet in a stream of packets directed towards a particular destination, where the packet has been processed by the router. If the next received packet is from the network, then the network-side packet processing logic 604 for the input port causes the memory controller 620 to store the packet in shared memory 612 and to extract the destination address from the IP datagram header (steps 900, 902, 904). The packet processing logic then causes the IP destination address to be input to the associated packet forwarding table (step 906). If the table indicates a hit, then the table transfers the associated physical (layer 2) next hop address to the packet processing logic (steps 908, 910). The packet processing logic causes the memory controller to forward the IP datagram to the packet processing logic 604, which encapsulates the datagram in a frame including the layer 2 next hop address (step 912). The packet processing logic 604 then forwards the frame to the next hop destination on the appropriate output port (step 914).

Applicants submit that the relied-upon portions of Bernstein disclose nothing more than conventional router acceleration of the type described in the background section of their specification, for example, at page 1, lines 21-31. There is no teaching or suggestion in the relied-upon portions, or the associated flow diagram of FIG. 9, regarding the claimed determining, for at

least some of the received frames, whether the frames belong to a first list of frame groups, defined by values of a plurality of frame parameters, and routing, by the acceleration switch, at least some of the received frames, the routed frames being selected responsive to the determining. Moreover, there is no mechanism whatsoever described in Bernstein for addressing the problem of policy enforcement in an acceleration switch, as set forth on page 2, lines 1-4, of the specification. As indicated above, this particular problem, ignored by Bernstein, is addressed and solved by the present invention.

Since Bernstein fails to meet at least one limitation of independent claim 1, and also fails to provide its associated advantages, that claim is not anticipated by Bernstein.

Dependent claims 2-32 are believed allowable for at least the reasons identified above with regard to independent claim 1.

Independent claims 33, 37 and 46, and their associated dependent claims, are similarly directed to arrangements for overcoming the problem of policy enforcement in the routing context, and are therefore believed allowable for reasons similar to those identified above with regard to claim 1.

In view of the above, Applicants believe that claims 1-48 are in condition for allowance.

Respectfully submitted,



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Enclosure(s): Substitute Specification
Copies of IDS References and PTO-1449 Form